Summary of Pros and Cons of
Regulatory Options for Licensing New Uranium Conversion and
Depleted Uranium Deconversion Facilities

Second Issue: Requiring an Integrated Safety Analysis

1. Undertake a rulemaking establishing analogous requirements in Part 40.

Pros:

- Establishes a single, consistent, risk-informed set of requirements that would be applicable to all uranium conversion and depleted uranium deconversion facilities.
- Regulations would make voluntary commitments of Honeywell mandatory.
- Undertaking a rulemaking is consistent with NRC policy to minimize regulating on the basis of orders.
- Allows for public comment.

Cons:

- Requires an estimated 2.0 full-time-equivalents (FTEs) and no technical assistance contract dollars for all offices to complete the rulemaking over a 2-year period.
- Rulemaking would be applicable to less than five expected license applications in the near-term.
- Rulemaking may not be completed in time for the first applications for new conversion or deconversion facilities.

2. Issue orders imposing the Part 70, Subpart H, performance requirements.

Pros:

- Would require a smaller resource commitment (0.25 FTE per order) than rulemaking.
- Could be accomplished in substantially less time (less than six months) than the approximate two years to complete a rulemaking.

- Could be accomplished before the initiation of the technical review of new applications submitted in the near-term.

Cons:

- Would be applied on an applicant-by-applicant basis.
- Orders to new applicants would not apply to the existing uranium conversion and deconversion plants.
- Orders to existing uranium conversion and deconversion plants may be needed to ensure regulatory consistency.
- Inconsistent with NRC policy to minimize regulating on the basis of orders.
- No public comment period would be provided.

Third Issue: Impose Part 70, Subpart H, Licensing Requirements on Honeywell, International Isotopes, Inc., and Other Existing Uranium Conversion and Deconversion Facilities.

1. Issue orders imposing Part 70, Subpart H, requirements on Honeywell, International Isotopes, Inc., and other existing uranium conversion and deconversion facilities

Pros:

- Establish enforceable, risk-informed, performance-based requirements and management measures consistent with other fuel cycle facilities that are licensed under Part 70 and have related chemical and radiological hazards.
- Could be accomplished in a more timely manner before rulemaking.
- Could be accomplished with minimal staff resources (0.25 FTE), per order.

Cons:

- Would have financial impact on licensee.
- Due to voluntary preparation of the Honeywell integrated safety analysis, there would be little to no safety benefit of faster schedule compared to rulemaking.
- Issuing an order is inconsistent with NRC policy to minimize regulating on the basis of orders.
- Provide public comment.

2. Impose Part 70, Subpart H, requirements by rulemaking.

Pros:

- Establishes a single, consistent, risk-informed, performance-based set of requirements that would be applicable to all uranium conversion and depleted uranium deconversion facilities.
- Regulations would make full implementation of all the Part 70, Subpart H, requirements for Honeywell mandatory, not just the voluntary commitments to prepare an integrated safety analysis for emergency planning purposes.
- Undertaking a rulemaking is consistent with NRC policy to minimize regulating on the basis of orders.
- Allows public comment.

Cons:

- Requires an estimated 2.0 FTEs to complete the rulemaking over a 2-year period.
- Would have a financial impact on the licensee.
- Rulemaking would delay imposition of risk-informed requirements at the Honeywell facility.

3. Impose, by rulemaking, Part 70, Subpart H, requirements only for facilities having source material possession limits greater than 10,000 kg of uranium hexafluoride or uranium tetrafluoride and for facilities having possession of greater than 1,000 pounds of hydrogen fluoride (or an alternative threshold). This option would also impose, by rulemaking, Part 70, Subpart H, requirements only for new facilities and currently operating facilities.

Pros:

- Would reduce unnecessary regulatory burden on facilities with limited hazards, such as International Isotopes, Inc., Aerojet Ordnance, and the Starmet facilities.
- Because the total quantity of licensed material on site would be less than a single 14-ton cylinder of uranium hexafluoride, the public health and safety hazards would be less than at larger facilities who process greater quantities.

- The Occupational Safety and Health Administration (OSHA) and the U.S. Enviromental Protection Agency (EPA) have established threshold quantities for hydrogen fluoride of 1,000 pounds as a basis for requiring occupational and release safety analyses. (See 29 CFR 1910.119 the OSHA Process Safety Management (PSM) regulation; 40 CFR Part 68, EPA's Risk Management Program requirements; and 40 CFR Part 355, Emergency Planning.) Based on these requirements, it is reasonable to establish a hydrogen fluoride possession threshold of 1,000 pounds for requiring imposition of the Part 70, Subpart H, requirements.

- Would eliminate the preparation of integrated safety analyses for existing low-risk facilities in decommissioning.

- Would reduce staff resource requirements for licensing and overseeing compliance with Part 70, Subpart H, programs.

- Would be a risk-informed application of regulatory requirements.

- Allows public comment.

Cons:

- For facilities under the thresholds or those in decommissioning, could be considered as an inconsistent application of Part 70, Subpart H, requirements (which currently apply to fuel cycle facilities with smaller inventories of UF_6 due to other hazards such as nuclear criticality).

4. Continue status quo without imposing the Part 70, Subpart H, requirements on Honeywell and International Isotopes, Inc.

Pros:

- Would reduce staff resource commitments by not imposing additional requirements for these facilities.

- Would reduce licensee resource commitments by not imposing new requirements on these facilities.

Cons:

- NRC could be perceived as not sufficiently regulating the potential safety hazards at the Honeywell, International Isotopes, Inc., and other existing uranium conversion and deconversion facilities.

- Honeywell, International Isotopes, Inc., and other existing uranium conversion and deconversion facilities would continue to operate under regulations that substantially differ from other fuel cycle facilities, including future conversion and deconversion facilities.

- Would not achieve Commission goal of risk-informing the licensing basis for these facilities.